

PATENT COOPERATION TREATY

11 MAR 2004

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Zacco Norway AS
P.O. Box 765, Sentrum
N-0106 Oslo
Norge

PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing
(day/month/year)

09-03-2004

Applicant's or agent's file reference

E27757 RLI/JOB

REPLY DUE

within 60 days from
the above date of mailing

International application No.

PCT/NO 2003/000084

International filing date (day/month/year)

11.03.2003

Priority date (day/month/year)

14.03.2002

International Patent Classification (IPC) or both national classification and IPC

A23K 1/00, C11B 5/00, A23D 9/06

Applicant

Norsk Hydro ASA et al

1. ☐ The written opinion established by the International Searching Authority:
☐ is ☐ is not
considered to be a written opinion of the International Preliminary Examining Authority.
2. This _____ (first, etc.) opinion contains indications relating to the following items:
- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
- When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).
- How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.
- Also** For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.
- If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 14.07.2004

Name and mailing address of the IPEA/SE

Patent- och registreringsverket
Box 5055
S-102 42 STOCKHOLM

Facsimile No. 46 8 667 72 88

Form PCT/IPEA/408 (cover sheet) (January 2004)

Authorized officer

Per Renström/EÖ

Telephone No. 46 8 782 25 00

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PC/NO 2003/000084

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed.")*:

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the claims:

pages _____ as originally filed/furnished

pages _____ as amended (together with any statement) under Article 19

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the drawings:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/NO 2003/000084

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 1-6

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-6
are so unclear that no meaningful opinion could be formed (*specify*):

See Box VIII.

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. _____

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the
Administrative Instructions in that:

the written form

☐

has not been furnished

☐

does not comply with the standard

the computer readable form

☐

has not been furnished

☐

does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with
the technical requirements provided for in the Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PC NO 2003/000084

Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-6</u>	<u>No</u>
	Claims		
Inventive step (IS)	Claims	<u>1-6</u>	<u>No</u>
	Claims		
Industrial applicability (IA)	Claims		
	Claims		

2. Citations and explanations:

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Relevant documents (from the International Search Report)

- D1: WO0001249 (P9806, Neperdo-1)
D2: WO0146355 (P99103, Neperdo-2)
D3: Daskalov H. et al; "Influence of oxidized lipids in diets on the development of rainbow trout fry syndrome"; Journal of Fish Diseases, 23, 1 (January 2000), pages 7-14.
D4: Olsen R.E. et al; "The influence of temperature, dietary polyunsaturated fatty acids, α -tocopherol and spermine on fatty acid composition and indices of oxidative stress in juvenile Arctic char, *Salvelinus alpinus* (L.)"; Fish Physiology and Biochemistry, 20, 1 (January 1999), pages 13-29.
D5: Waagbø, R.; "The impact of nutritional factors on the immune system in Atlantic salmon, *Salmo salar* L.: a review"; Aquaculture and fisheries management, 25 (1994), pages 175-197.

The present claims 1-6 have not been searched or examined completely. For further information regarding incomplete search and examination, see Box No. VIII.

The present application relates to a feed for marine species, which feed comprises proteins, lipids and optional components, and is characterized in that the lipids are one or more marine oils and/or vegetable oils treated by urea and/or other amines or amides, to prevent oxidative degradation.

D1 (page 1, lines 10-12; page 2, lines 4-10; page 3, lines 1-9; Examples; Amended Claims 1 and 8, pages 16-17) and D2 (page 1, lines 10-17; page 3, lines 8-9; page 4, lines 5-7; Examples; Claims 1, 10 and 13, pages 11-12) describe methods for
.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V.

-stabilising vegetable and animal oils against oxidation of fat components and/or pigments in the oils by treatment with urea (D1) and/or other amines or amides (D2). The documents also describe feeds for salmonids comprising proteins, lipids, pigments and optional components, which feeds are characterized in that the lipids are one or more marine oils and/or vegetable oils treated by urea (D1) and/or other amines or amides (D2).

Since the present claims do not exclude the presence of pigments in the feed, the invention according to claims 1-6 lacks novelty with regard to D1 and D2, taken separately. Regardless of this, since D1 and D2 not only concern protection of the pigments but also of the oils themselves, the invention according to claims 1-6 is considered to lack an inventive step with regard to D1/D2.

Furthermore attention is directed towards D3-D5, describing the negative influence of dietary lipid oxidation on fish health.

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Present claims 1 - 6 relate to an extremely large number of possible compounds. Support within the meaning of Article 6 PCT and / or disclosure within the meaning of Article 5 PCT is to be found for only a very small proportion of the compounds to which the present claims relate. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Consequently, the search and examination has been carried out only for those parts of the claims which appear to be supported and disclosed, namely those parts related to urea and the amines and amides in WO0146355 (page 5, Table 1), namely: allylurea, hexylamine, N-ethyl-diisopropylamine, N,N'-dimethylurea, Oxamide and butyramide.